primary studies - published, non RCT

Newborn screening alone insufficient to improve pulmonary outcomes for cystic fibrosis.

Code: PM32546430 **Year:** 2021 **Date:** **Author:** Barreda CB

Study design (if review, criteria of inclusion for studies)

Retrospective analysis of the RCT cohort utilized longitudinal outcome measures obtained from the Cystic Fibrosis Foundation Patient Registry (CFFPR).

Participants

145 subjects who consented to the original study (The Wisconsin Cystic Fibrosis Neonatal Screening Project), 104 subjects met inclusion criteria and had adequate data in the CFFPR.

Interventions

An early diagnosis of CF via newborn screening (NBS) vs diagnosis by clinical symptoms

Outcome measures

Clinical characteristics, percent predicted forced expiratory volume in 1 s (ppFEV(1)) and mortality. A random intercept model was used to compare the ppFEV(1) decline of subjects between the two groups up to age 26 years. Mortality was analyzed using the Kaplan-Meier method.

Main results

Of the 145 subjects who consented to the original study, 104 subjects met inclusion criteria and had adequate data in the CFFPR. Of 57 subjects in the screened group and 47 in the control group, the rates of ppFEV(1) decline were 1.76%/year (95% CI 1.62 to 1.91%) and 1.43%/year (95% CI 1.26 to 1.60%), respectively (p

Authors' conclusions

NBS alone does not improve pulmonary outcomes in CF, particularly when other risk factors supervene. In an era prior to strict infection control and current therapies, NBS for CF may be associated with worse pulmonary outcomes.

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See also

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Keywords

Neonatal Screening; Newborn; non pharmacological intervention - diagn; screening; diagnostic procedures;